

Claims

- 1 1. A method for scrambling an analog signal, comprising:
 - 2 a) receiving an analog signal;
 - 3 b) converting said received analog signal into an intermediate frequency signal;
 - 4 c) generating a gaussian pseudo-random noise signal; and
 - 5 d) combining said intermediate frequency signal and said gaussian pseudo-
6 random noise signal.
- 1 2. The method according to claim 1, wherein step b) comprises converting said received
2 analog signal into a single side band intermediate frequency signal.
- 1 3. The method according to claim 1, wherein step c) comprises:
 - 2 a) generating a pseudo-random noise signal based on a password;
 - 3 b) filtering said pseudo-random noise signal; and
 - 4 c) converting said filtered pseudo-random noise signal into a gaussian frequency
5 distribution signal.
- 1 4. The method according to claim 1, wherein step d) comprises combining said
2 intermediate frequency signal and said gaussian pseudo-random noise signal to form
3 a radio frequency signal.

- 1 5. A method for de-scrambling an analog signal, comprising:
 - 2 a) receiving a scrambled analog signal;
 - 3 b) converting said scrambled signal into an intermediate frequency signal;
 - 4 c) generating a gaussian pseudo-random noise signal; and
 - 5 d) combining said intermediate frequency signal and said gaussian pseudo-
6 random noise signal.
- 1 6. The method according to claim 5, wherein step b) comprises converting said
2 scrambled signal into a single side band intermediate frequency signal.
- 1 7. The method according to claim 5, wherein step c) comprises:
 - 2 a) generating a pseudo-random noise signal based on a password used for said
3 scrambled signal;
 - 4 b) filtering said pseudo-random noise signal; and
 - 5 c) converting said filtered pseudo-random noise signal into a gaussian frequency
6 distribution signal.
- 1 8. The method according to claim 5, wherein step d) comprises using a frequency
2 converter to combine said intermediate frequency signal and said gaussian frequency
3 distribution signal.

1 9. A method for scrambling and de-scrambling an analog signal, comprising:

- 2 a) receiving said analog signal;
- 3 b) converting said received analog signal into an intermediate frequency signal;
- 4 c) generating a gaussian pseudo-random noise signal;
- 5 d) generating a scrambled signal based on said intermediate frequency signal and
- 6 said gaussian pseudo-random noise signal;
- 7 e) converting said scrambled signal into a second intermediate frequency signal;
- 8 f) generating a second gaussian pseudo-random noise signal; and
- 9 g) de-scrambling said scrambled signal based on said second intermediate
- 10 frequency signal and said gaussian pseudo-random noise signal.

1 10. The method according to claim 9, wherein step b) comprises converting said received

2 analog signal into a single side band intermediate frequency signal.

1 11. The method according to claim 9, wherein step c) comprises:

- 2 a) generating a pseudo-random noise signal based on a predetermined key;
- 3 b) filtering said pseudo-random noise signal; and

4 c) converting said filtered pseudo-random noise signal into a gaussian frequency
5 distribution signal.

1 12. The method according to claim 9, wherein step d) comprises combining said
2 intermediate frequency signal and said gaussian pseudo-random noise signal to form
3 a radio frequency signal.

1 13. The method according to claim 9, wherein step e) comprises converting said
2 scrambled signal into a second single side band intermediate frequency signal.

1 14. The method according to claim 11, wherein step f) comprises:

- 2 a) generating a pseudo-random noise signal based on said predetermined key;
3 b) filtering said pseudo-random noise signal; and
4 c) converting said filtered pseudo-random noise signal into a gaussian frequency
5 distribution signal.

1 15. The method according to claim 9, wherein step g) comprises using a frequency
2 converter to combine said intermediate frequency signal and said gaussian frequency
3 distribution signal.